## **Amendments**

## In the Claims:

Please substitute the following claim 1 for the pending claim 1:

1. (Twice amended) A compound having the Formula I:

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or a pharmaceutically acceptable salt, prodrug or solvate thereof, wherein:

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$$Y$$
 is  $R_6$  or  $R_7$ ,

provided that when Y is R<sub>7</sub>, R<sub>1</sub> is aminocarbonyls

 $A_1$  is N and  $A_2$  and  $A_3$  are  $CR_2$ , or  $A_3$  is N and  $A_1$  and  $A_2$  are  $CR_2$ ;

 $R_1$  is selected from the group consisting an optionally substituted alkyl, amino, alkylthio,  $C(O)R_8$ ,  $SO_2R_8$ ,  $OC(O)NH_2$ , 2-imidazolinyl, 2-imidazolyl, 3-pyrazolyl, 5-isoxazolyl, and 3-(1,2,4)-triazolyl;

each  $R_2$  is selected from the group consisting of hydrogen, optionally substituted alkyl, alkenyl, or alkynyl, halogen, hydroxy, cycloalkyl, cyano, amino, alkylamino, dialkylamino, alkoxy, aminocarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, alkylamino, and aralkylamino; or  $R_1$  and  $R_2$  are taken together with the carbon atoms to which they are attached to form a heterocyclic ring;

R<sub>3</sub>, R<sub>4</sub>, R<sub>5</sub>, and R<sub>6</sub> are independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, halogen, haloalkyl, hydroxyalkyl, hydroxy, nitro, amino, cyano, amide, carboxyalkyl, alkoxyalkyl, ureido, acylamino, thiol, acyloxy,

azido, alkoxy, carboxy, carbonylamido and alkylthiol;

R<sub>7</sub> is an optionally substituted alkyl;

R<sub>8</sub> is selected from the group consisting of alkyl, alkenyl, alkynyl, OR<sub>9</sub>, amino, alkylamino, dialkylamino, dialkylamino, dialkylaminoalkenylamino, dialkylaminoalkenylamino, hydroxyaminoalkenylamino, cycloalkyl, heterocycloalkyl, cycloalkylalkylamino, heterocycloalkylamino, aryl, arylalkyl, arylalkenyl, arylalkynyl, and arylalkylamino, all of which can be optionally substituted, provided that R<sub>8</sub> is not OR<sub>9</sub> when R<sub>1</sub> is SO<sub>2</sub>R<sub>8</sub>; wherein

R<sub>9</sub> is selected from the group consisting of hydrogen, optionally substituted alkyl, and an alkali metal; and

X is one of O, S, NH, or CH<sub>2</sub> when Y is other than R<sub>7</sub>; or

X is one of O, S, NH,  $CH_2$  or absent when Y is  $R_7$ ;

with the provisos that  $R_2$  is not methoxy if  $R_5$  is trifluoromethyl,  $R_6$  is H, X is O and  $R_1$  is  $SO_2CH_2Ph$ ; or each  $R_2$  is hydrogen when  $R_1$  is carboxy, X is O,  $A_1$  is N, and Y

Please substitute the following claim 2 for the pending claim 2:

## 2. (Twice Amended) A compound having the Formula II:

 $R_5$   $R_6$   $R_4$   $R_4$   $R_4$   $R_4$ 

or a pharmaceutically acceptable salt, prodrug or solvate thereof, wherein:

 $A_1$  is N and  $A_2$  and  $A_3$  are  $CR_2$ , or  $A_3$  is N and  $A_1$  and  $A_2$  are  $CR_2$ ;

 $R_1$  is selected from the group consisting an optionally substituted alkyl, amino, alkylthio,  $C(O)R_8$ ,  $SO_2R_8$ ,  $OC(O)NH_2$ , 2-imidazolinyl, 2-imidazolyl, 3-pyrazolyl, 5-isoxazolyl, and 3-(1,2,4)-triazolyl;





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each  $R_2$  is selected from the group consisting of hydrogen, optionally substituted alkyl, alkenyl, or alkynyl, halogen, hydroxy, cycloalkyl, cyano, amino, alkylamino, dialkylamino, alkoxy, aminocarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, alkylcarbonylamino, arylcarbonylamino, and aralkylcarbonylamino; or  $R_1$  and  $R_2$  are taken together with the carbon atoms to which they are attached to form a heterocyclic ring;

R<sub>3</sub>, R<sub>4</sub>, R<sub>5</sub>, and R<sub>6</sub> are independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, halogen, haloalkyl, hydroxyalkyl, hydroxy, nitro, amino, cyano, amide, carboxyalkyl, alkoxyalkyl, ureido, acylamino, thiol, acyloxy, azido, alkoxy, carboxy, carbonylamido and alkylthiol; and

R<sub>8</sub> is selected from the group consisting of alkyl, alkenyl, alkynyl, OR<sub>9</sub>, amino, alkylamino, dialkylamino, dialkylamino, dialkylaminoalkenylamino, dialkylaminoalkenylamino, hydroxyaminoalkenylamino, cycloalkyl, heterocycloalkyl, cycloalkylalkylamino, heterocycloalkylamino, aryl, arylalkyl, arylalkenyl, arylalkynyl, and arylalkylamino, all of which can be optionally substituted, provided that R<sub>8</sub> is not OR<sub>9</sub> when R<sub>1</sub> is SO<sub>2</sub>R<sub>8</sub>; wherein

R<sub>9</sub> is selected from the group consisting of hydrogen, optionally substituted alkyl, and an alkali metal; and

X is one of O, S, NH, or CH<sub>2</sub>;

with the provisos that  $R_2$  is not methoxy if  $R_5$  is trifluoromethyl,  $R_6$  is H, X is O and  $R_1$  is  $SO_2CH_2Ph$ ; or each  $R_2$  is hydrogen when  $R_1$  is carboxy, X is O, and  $A_1$  is N.

Please substitute the following claim 50 for the pending claim 50:

50. (Twice Amended) A pharmaceutical composition, comprising the compound of formula:

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$$R_3$$
 $R_4$ 
 $R_4$ 
 $R_1$ 

or a pharmaceutically acceptable salt, prodrug or solvate thereof, wherein:

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$$R_{\mathbf{5}}$$
 or  $R_{7}$ , provided that when Y is  $R_{7}$ ,  $R_{1}$  is

aminocarbonyl;

Y is

 $A_1$  is N and  $A_2$  and  $A_3$  are  $CR_2$ ; or  $A_3$  is N and  $A_1$  and  $A_2$  are  $CR_2$ ;

 $R_1$  is selected from the group consisting an optionally substituted alkyl, amino, alkylthio,  $C(O)R_8$ ,  $SO_2R_8$ ,  $OC(O)NH_2$ , 2-imidazolinyl, 2-imidazolyl, 3-pyrazolyl, 5-isoxazolyl, and 3-(1,2,4)-triazolyl;

each  $R_2$  is selected from the group consisting of hydrogen, optionally substituted alkyl, alkenyl, or alkynyl, halogen, hydroxy, cycloalkyl, cyano, amino, alkylamino, dialkylamino, alkoxy, aminocarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, alkylamino, arylcarbonylamino, and aralkylcarbonylamino; or  $R_1$  and  $R_2$  are taken together with the carbon atoms to which they are attached to form a heterocyclic ring;

R<sub>3</sub>, R<sub>4</sub>, R<sub>5</sub>, and R<sub>6</sub> are independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, halogen, haloalkyl, hydroxyalkyl, hydroxy, nitro, amino, cyano, amide, carboxyalkyl, alkoxyalkyl, ureido, acylamino, thiol, acyloxy, azido, alkoxy, carboxy, carbonylamido and alkylthiol;

R<sub>7</sub> is an optionally substituted alkyl;

R<sub>8</sub> is selected from the group consisting of alkyl, alkenyl, alkynyl, OR<sub>9</sub>, amino,

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alkylamino, dialkylamino, alkenylamino, dialkylaminoalkenyl, dialkylaminoalkylamino, dialkylaminoalkenylamino, hydroxyaminoalkenylamino, cycloalkyl, heterocycloalkyl, cycloalkylalkylamino, heterocycloalkylamino, aryl, arylalkyl, arylalkynyl, and arylalkylamino, all of which can be optionally substituted, provided that R<sub>8</sub> is not OR<sub>9</sub> when R<sub>1</sub> is SO<sub>2</sub>R<sub>8</sub>; wherein

R<sub>9</sub> is selected from the group consisting of hydrogen, optionally substituted alkyl, and an alkali metal; and

X is one of O, S, NH, or CH<sub>2</sub> when Y is other than R<sub>7</sub>; or

X is one of ©, S, NH, CH<sub>2</sub> or absent when Y is R<sub>7</sub>;

with the proviso that each  $R_2$  is hydrogen when  $R_1$  is carboxy, X is O,  $A_1$  is N,

and Y is

and a pharmaceutically acceptable carrier or diluent.

Please substitute the following claim 51 for the pending claim 51:

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51. (Twice Amended) The composition of claim 50, wherein the compound is as claimed in any one of claims 1, 2, 63, or 69.

Please substitute the following claim 63 for the pending claim 63:

63. (Once Amended) A compound having the Formula I:

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$$R_3$$
 $R_4$ 
 $R_4$ 
 $R_4$ 

or a pharmaceutically acceptable salt, prodrug or solvate thereof, wherein:

Y is  $R_6$  or  $R_7$ ,

provided that when Y is R<sub>7</sub>, R<sub>1</sub> is aminocarbonyl;

A<sub>1</sub> is N and A<sub>2</sub> and A<sub>3</sub> are CR<sub>2</sub>; or A<sub>3</sub> is N and A<sub>1</sub> and A<sub>2</sub> are CR<sub>2</sub>;

 $R_1$  is selected from the group consisting an optionally substituted alkyl, amino, alkylthio,  $C(O)R_8$ ,  $SO_2R_8$ ,  $OC(O)NH_2$ , 2-imidazolinyl, 2-imidazolyl, 3-pyrazolyl, 5-isoxazolyl, and 3-(1,2,4)-triazolyl;

each  $R_2$  is selected from the group consisting of hydrogen, optionally substituted alkyl, alkenyl, or alkynyl, halogen, hydroxy, cycloalkyl, cyano, alkylamino, dialkylamino, alkoxy, aminocarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, and aralkylcarbonylamino; or  $R_1$  and  $R_2$  are taken together with the carbon atoms to which they are attached to form a heterocyclic ring;

R<sub>3</sub>, R<sub>4</sub>, R<sub>5</sub>, and R<sub>6</sub> are independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, halogen, haloalkyl, hydroxyalkyl, hydroxy, nitro, amino, cyano, amide, carboxyalkyl, alkoxyalkyl, ureido, acylamino, thiol, acyloxy, azido, alkoxy, carboxy, carbonylamido and alkylthiol;

R<sub>7</sub> is an optionally substituted alkyl;

R<sub>8</sub> is selected from the group consisting of alkyl, alkenyl, alkynyl, OR<sub>9</sub>, amino, alkylamino, dialkylamino, dialkylamino, dialkylaminoalkenylamino, dialkylaminoalkenylamino, hydroxyaminoalkenylamino, cycloalkyl, heterocycloalkyl, cycloalkylalkylamino, heterocycloalkylamino, aryl, arylalkyl, arylalkenyl, arylalkynyl, and arylalkylamino, all of which can be optionally substituted, provided that R<sub>8</sub> is not OR<sub>9</sub> when R<sub>1</sub> is SO<sub>2</sub>R<sub>8</sub>; wherein

R<sub>9</sub> is selected from the group consisting of hydrogen, optionally substituted alkyl, and an alkali metal; and

X is one of O, S, NH, or CH<sub>2</sub> when Y is other than R<sub>7</sub>; or

X is one of O, S, NH, CH<sub>2</sub> or absent when Y is R<sub>7</sub>;

with the proviso that  $R_2$  is not methoxy if  $R_5$  is trifluoromethyl,  $R_6$  is H, X is O and  $R_1$  is  $SO_2CH_2Ph$ .

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Please substitute the following claim 68 for the pending claim 68:

68. (Once Amended) A pharmaceutical composition, comprising the compound of formula:

 $R_3$   $R_4$   $R_4$   $R_4$   $R_4$ 

or a pharmaceutically acceptable salt, prodrug or solvate thereof, wherein:

 $R_6$  or  $R_7$ , provided that when Y is  $R_7$ ,  $R_1$  is

aminocarbonyl;

Y is

A<sub>1</sub> is N and A<sub>2</sub> and A<sub>3</sub> are CR<sub>2</sub>; or A<sub>3</sub> is N and A<sub>1</sub> and A<sub>2</sub> are CR<sub>2</sub>;

 $R_1$  is selected from the group consisting an optionally substituted alkyl, amino, alkylthio,  $C(O)R_8$ ,  $SO_2R_8$ ,  $OC(O)NH_2$ , 2-imidazolinyl, 2-imidazolyl, 3-pyrazolyl, 5-isoxazolyl, and 3-(1,2,4)-triazolyl;

each R<sub>2</sub> is selected from the group consisting of hydrogen, optionally substituted alkyl, alkenyl, or alkynyl, halogen, hydroxy, cycloalkyl, cyano, alkylamino, dialkylamino, alkoxy, aminocarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, and aralkylcarbonylamino; or R<sub>1</sub> and R<sub>2</sub> are taken together with the carbon atoms to which they are attached to form a heterocyclic ring;

R<sub>3</sub>, R<sub>4</sub>, R<sub>5</sub>, and R<sub>6</sub> are independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, halogen, haloalkyl, hydroxyalkyl, hydroxy, nitro, amino, cyano, amide, carboxyalkyl, alkoxyalkyl, ureido, acylamino, thiol, acyloxy, azido, alkoxy, carboxy, carbonylamido and alkylthiol;

R<sub>7</sub> is an optionally substituted alkyl;

R<sub>8</sub> is selected from the group consisting of alkyl, alkenyl, alkynyl, OR<sub>9</sub>, amino, alkylamino, dialkylamino, dialkylamino, dialkylamino, dialkylamino,

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dialkylaminoalkenylamino, alkylaminoalkenyl-amino, hydroxyaminoalkenylamino, cycloalkyl, heterocycloalkyl, cycloalkylalkylamino, heterocycloalkylamino, aryl, arylalkyl, arylalkynyl, and arylalkylamino, all of which can be optionally substituted, provided that  $R_8$  is not  $OR_9$  when  $R_1$  is  $SO_2R_8$ ; wherein

R<sub>9</sub> is selected from the group consisting of hydrogen, optionally substituted alkyl, and an alkali metal; and

X is one of O, S, NH, or CH<sub>2</sub> when Y is other than R<sub>7</sub>; or

X is one of O, S, NH, CH<sub>2</sub> or absent when Y is R<sub>7</sub>; and a pharmaceutically acceptable carrier or diluent.

Please add the following new claims 69-71:

69. (New) A compound having the Formula I:

$$R_3$$
 $R_4$ 
 $R_4$ 
 $R_1$ 

or a pharmaceutically acceptable salt, prodrug or solvate thereof, wherein:

$$Y$$
 is  $R_6$  or  $R_7$ ,

provided that when Y is R<sub>7</sub>, R<sub>1</sub> is aminocarbonyl;

 $A_1$  is N and  $A_2$  and  $A_3$  are  $CR_2$ , or  $A_3$  is N and  $A_1$  and  $A_2$  are  $CR_2$ ;

 $R_1$  is selected from the group consisting an optionally substituted alkyl, amino, alkylthio,  $C(O)R_8$ ,  $SO_2R_8$ ,  $OC(O)NH_2$ , 2-imidazolinyl, 2-imidazolyl, 3-pyrazolyl, 5-isoxazolyl, and 3-(1,2,4)-triazolyl;

each R<sub>2</sub> is selected from the group consisting of hydrogen, optionally substituted alkyl, alkenyl, or alkynyl, halogen, hydroxy, cycloalkyl, cyano, amino, alkylamino, dialkylamino, alkoxy, aminocarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, alkylcarbonylamino, arylcarbonylamino, and

aralkylcarbonylamino; or  $R_1$  and  $R_2$  are taken together with the carbon atoms to which they are attached to form a heterocyclic ring;

R<sub>3</sub>, R<sub>4</sub>, R<sub>5</sub>, and R<sub>6</sub> are independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, halogen, haloalkyl, hydroxyalkyl, hydroxy, nitro, amino, cyano, amide, carboxyalkyl, alkoxyalkyl, ureido, acylamino, thiol, acyloxy, azido, alkoxy, carboxy, carbonylamido and alkylthiol;

R<sub>7</sub> is an optionally substituted alkyl;

R<sub>8</sub> is selected from the group consisting of alkyl, alkenyl, alkynyl, OR<sub>9</sub>, amino, alkylamino, dialkylamino, dialkylamino, dialkylaminoalkenylamino, dialkylaminoalkenylamino, hydroxyaminoalkenylamino, cycloalkyl, heterocycloalkyl, cycloalkylalkylamino, heterocycloalkylamino, aryl, arylalkyl, arylalkynyl, and arylalkylamino, all of which can be optionally substituted, provided that R<sub>8</sub> is not OR<sub>9</sub> when R<sub>1</sub> is SO<sub>2</sub>R<sub>8</sub>; wherein

R<sub>9</sub> is selected from the group consisting of hydrogen, optionally substituted alkyl, and an alkali metal; and

X is one of S, NH, or  $CH_2$  when Y is other than  $R_7$ ; or

X is one of O, S, NH, CH<sub>2</sub> or absent when Y is R<sub>7</sub>.

70. (New) The compound of claim 2 having the Formula II:

$$R_6$$
 $R_6$ 
 $R_6$ 
 $R_4$ 
 $R_4$ 
 $R_4$ 
 $R_4$ 
 $R_4$ 

or a pharmaceutically acceptable salt, prodrug or solvate thereof, wherein:

A<sub>1</sub> is N and A<sub>2</sub> and A<sub>3</sub> are CR<sub>2</sub>;

 $R_1$  is selected from the group consisting an optionally substituted alkyl, amino, alkylthio,  $C(O)R_8$ ,  $SO_2R_8$ ,  $OC(O)NH_2$ , 2-imidazolinyl, 2-imidazolyl, 3-pyrazolyl, 5-isoxazolyl, and 3-(1,2,4)-triazolyl;

each R<sub>2</sub> is selected from the group consisting of hydrogen, optionally substituted alkyl, alkenyl, or alkynyl, halogen, hydroxy, cycloalkyl, cyano, amino, alkylamino, dialkylamino, alkoxy, aminocarbonyl, alkylaminocarbonyl, arylaminocarbonyl,

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aralkylaminocarbonyl, alkylcarbonylamino, arylcarbonylamino, and aralkylcarbonylamino; or  $R_1$  and  $R_2$  are taken together with the carbon atoms to which they are attached to form a heterocyclic ring;

R<sub>3</sub>, R<sub>4</sub>, R<sub>5</sub>, and R<sub>6</sub> are independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, halogen, haloalkyl, hydroxyalkyl, hydroxy, nitro, amino, cyano, amide, carboxyalkyl, alkoxyalkyl, ureido, acylamino, thiol, acyloxy, azido, alkoxy, carboxy, carboxylamido and alkylthiol; and

R<sub>8</sub> is selected from the group consisting of alkyl, alkenyl, alkynyl, OR<sub>9</sub>, amino, alkylamino, dialkylamino, dialkylamino, dialkylaminoalkenylamino, dialkylaminoalkenylamino, hydroxyaminoalkenylamino, cycloalkyl, heterocycloalkyl, cycloalkylalkylamino, heterocycloalkylamino, aryl, arylalkyl, arylalkynyl, and arylalkylamino, all of which can be optionally substituted, provided that R<sub>8</sub> is not OR<sub>9</sub> when R<sub>1</sub> is SO<sub>2</sub>R<sub>8</sub>; wherein

R<sub>9</sub> is selected from the group consisting of optionally substituted alkyl and an alkali metal; and

X is one of O, S, NH, or CH<sub>2</sub>;

with the proviso that  $R_2$  is not methoxy if  $R_5$  is trifluoromethyl,  $R_6$  is H, X is O and  $R_1$  is  $SO_2CH_2Ph$ .

71. (New) The compound of claim 2 having the Formula II:

$$R_6$$
  $R_3$   $A_2$   $R_4$   $R_4$   $R_4$ 

or a pharmaceutically acceptable salt, prodrug or solvate thereof, wherein: A<sub>3</sub> is N and A<sub>1</sub> and A<sub>2</sub> are CR<sub>2</sub>;

 $R_1$  is selected from the group consisting an optionally substituted alkyl, amino, alkylthio,  $C(O)R_8$ ,  $SO_2R_8$ ,  $OC(O)NH_2$ , 2-imidazolinyl, 2-imidazolyl, 3-pyrazolyl, 5-isoxazolyl, and 3-(1,2,4)-triazolyl;

each R<sub>2</sub> is selected from the group consisting of hydrogen, optionally substituted alkyl, alkenyl, or alkynyl, halogen, hydroxy, cycloalkyl, cyano, amino, alkylamino,

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dialkylamino, alkoxy, aminocarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, alkylcarbonylamino, arylcarbonylamino, and aralkylcarbonylamino; or  $R_1$  and  $R_2$  are taken together with the carbon atoms to which they are attached to form a heterocyclic ring;

R<sub>3</sub>, R<sub>4</sub>, R<sub>5</sub>, and R<sub>6</sub> are independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, halogen, haloalkyl, hydroxyalkyl, hydroxy, nitro, amino, cyano, amide, carboxyalkyl, alkoxyalkyl, ureido, acylamino, thiol, acyloxy, azido, alkoxy, carboxy, carbonylamido and alkylthiol; and

R<sub>8</sub> is selected from the group consisting of alkyl, alkenyl, alkynyl, OR<sub>9</sub>, amino, alkylamino, dialkylamino, dialkylamino, dialkylaminoalkenyl, dialkylaminoalkylamino, dialkylaminoalkenylamino, alkylaminoalkenyl-amino, hydroxyaminoalkenylamino, cycloalkyl, heterocycloalkyl, cycloalkylalkylamino, heterocycloalkylamino, aryl, arylalkyl, arylalkenyl, arylalkynyl, and arylalkylamino, all of which can be optionally substituted, provided that R<sub>8</sub> is not OR<sub>9</sub> when R<sub>1</sub> is SQ<sub>2</sub>R<sub>8</sub>; wherein

R<sub>9</sub> is selected from the group consisting of hydrogen, optionally substituted alkyl, and an alkali metal; and

X is one of O, S, NH, or CH<sub>2</sub>;

with the proviso that  $R_2$  is not methoxy if  $R_5$  is trifluoromethyl,  $R_6$  is H, X is O and  $R_1$  is  $SO_2CH_2Ph$ .

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